

40. On a New Species of *Dinotherium* (*Dinotherium hobleyi**)
from British East Africa. By C. W. ANDREWS, D.Sc.,
F.R.S., F.Z.S. (British Museum, Natural History) †.

[Received & Read May 23, 1911.]

(Plate XLVIII.‡)

During the last few years great additions have been made to our knowledge of the extinct mammalia of Africa, but hitherto the discoveries of their remains have been confined to the northern and southern portions of the continent. Now, however, a new find of mammalian bones in British East Africa shows that great hopes may be entertained that before long light will be thrown on the history of the group in the central portions of the continent. Recently Mr. C. W. Hobley, C.M.G., Commissioner of Mines in British East Africa, sent to the British Museum a small box of bones from the neighbourhood of Karungu on the east side of Lake Victoria Nyanza. Most of the specimens are indeterminable fragments, probably picked up on the surface, but in addition to these there are some beautifully preserved teeth with a portion of the mandible (Pl. XLVIII. figs. 1, 1a) of a small species of *Dinotherium*; a small imperfect Proboscidean calcaneum (fig. 5), a patella, and some other fragments probably belong to the same animal. The teeth and bone are in a wonderfully good state of preservation, being hard and not easily broken, and there can be no doubt that further collecting in the same locality will yield results of the very highest importance and interest.

The teeth preserved all belong to the lower jaw: they are *pm.* 4, *m.* 2, and *m.* 3 of the left side, and *pm.* 3 of the right; the left *pm.* 4 and *m.* 2 have been replaced in their sockets in the portion of the jaw preserved; this also contains the freshly broken roots of *pm.* 3 and *m.* 1; *m.* 3 is isolated, the portion of the jaw behind *m.* 2 being lost. Anteriorly the jaw fragment ceases at the level of the front of *pm.* 2, where its inner border is turning in towards the symphysis; its ventral portion is missing, the dental canal being exposed.

The teeth.—The anterior premolar (figs. 3, 4) has a crown consisting of a high, laterally compressed antero-external cusp, to the inner face of which a shorter and more rounded antero-internal cusp is closely united. The hinder half of the tooth consists of a comparatively low and compressed outer tubercle separated from the antero-external cusp by a notch, and a small rounded inner

* [The complete account of this new species appears here, but as the name and a preliminary diagnosis were published in the 'Abstract' the species is distinguished by the name being underlined.—EDITOR.]

† Published by permission of the Trustees of the British Museum.

‡ For explanation of the Plate see p. 945.

tubercle which is joined to the outer by a ridge widening from within outwards.

The last premolar (*pm.* 4) (figs. 1, 1 *a*) consists essentially of two transverse crests which are united towards the outer side by a low obscure ridge. On the anterior face of the tooth there is a slight prominence of the cingulum, the surface of wear of which becomes continuous with that of the outer end of the anterior crest. There is also a low transverse ridge formed by the cingulum on the posterior face of the tooth.

The first molar has unfortunately been lost; the second (*m.* 2) consists of a pair of transverse crests, the ends of which, especially the inner end, are higher than the middle and the anterior face of which is concave. On the posterior end there is a well-developed ridge of the cingulum extending nearly the whole width of the tooth. The third molar (*m.* 3) is similar to the second except that it has a well-developed triangular talon, the outer side of which is formed by a prominent tubercle from which a crest diminishing in height and width runs to the inner edge of the tooth.

In size and, on the whole, in the pattern of the teeth this *Dinotherium* is very similar to *D. curieri* Kaup, which is from the lower and middle Miocene of France, being apparently especially characteristic of the Burdigalien horizon. Detailed comparison however shows some differences. In *pm.* 3 the separation of the antero-internal cusp is much more distinct than in a specimen of the same tooth ascribed to *D. curieri*; the last premolar is shorter in proportion to its width than in that species, and in the talon of *m.* 3 the outer tubercle is much more distinctly and independently developed. These differences, coupled with the remoteness of the localities in which the two forms are found, seem to justify the establishment of a new species for this East African animal and I propose that it shall be called

DINOTHERIUM HOBLEYI Andrews.

Abstract, P. Z. S. 1911, p. 35 (May 30th).

The dimensions (in centimetres) of the teeth in the type-specimen are:—

	Length.	Width.
<i>pm.</i> 3.....	4·0	3·2
<i>pm.</i> 4.....	4·9	4·2
<i>m.</i> 2.....	6·2	5·2
<i>m.</i> 3.....	7·2	5·4

An imperfect proboscidean calcaneum (fig. 5) probably belongs to this species. It belongs to the left side, and a great part of its outer half is broken away and some of the other faces are abraded. Its extreme length is 17·2 cm., the cast of a calcaneum referred to *Dinotherium giganteum* is 32·7 cm. or nearly twice as long.

From the same locality there have been obtained a lower molar

and the distal end of a radius of a small species of *Rhinoceros* (? *Aceratherium*), portions of the carapace of a very large Chelonian, probably a species of *Testudo*, fragments of the shell of *Trionyx*, and some Crocodilian remains.

From some portions of matrix adherent to some of the bones it appears that they are preserved in a bed of tough clay with much calcareous matter and numerous grains of blown sand; this deposit is probably of lacustrine origin, but in the absence of any molluscs or other invertebrates, it is not possible to be certain either as to its origin or as to its exact age. Judging from the *Dinotherium* remains, the beds are probably lower or middle Miocene. If they should fortunately turn out to contain a rich mammalian fauna, probably this discovery will lead to a great advance in our knowledge of the history of several groups of Artiodactyls, of the Hyracoids, and possibly of the Anthropeidea. It is greatly to be desired that a careful collection should be made as soon as possible.

EXPLANATION OF PLATE XLVIII.

- Fig. 1. *Dinotherium hableyi*, portion of left ramus of mandible with *pm.* 4, *m.* 2, *m.* 3, from above; 1 *a*, ditto, from side. Type specimen.
 2. Ditto, crown of *m.* 2 of another individual.
 3. Ditto. *pm.* 3 of the type specimen from above; 3 *a*, ditto, from side.
 4. Ditto, crown of *pm.* 3 of another individual.
 5. Ditto, left calcaneum from inner side.

cub., facet for cuboid; *ect.*, ectal facet; *sus.*, sustentacular facet; *t.c.*, tuber calcis.

All the figures are $\frac{1}{3}$ natural size.

EXHIBITIONS AND NOTICES.

June 13, 1911.

EDWIN T. NEWTON, Esq., F.R.S., in the Chair.

MR. H. G. PLIMMER, F.R.S., F.Z.S., Pathologist to the Society, presented a Report on the Pathological Examination of Rats (*Mus decumanus*) caught in the Regent's Park and in the Society's Gardens. 500 rats had been examined between the 1st of January and the 17th of May, 1911, all in a precisely similar manner. The spleen, lungs, glands, and blood were examined microscopically; and from any animal which looked in any way unhealthy cultures were made.

The results were summarized as follows:—5 rats were caught in the Park, and 495 in the Gardens: 283 of these were males and 217 females.

3 rats had tubercle, 10 had tapeworm cysts in the liver, 49 had *Trypanosoma lewisi* in their blood, 2 had empyema (not tubercular), 1 had a tumour of the lower jaw (the result of an old injury), and 1 had pleuritis and hydrothorax (not tubercular).